

Remarks/Arguments

Reconsideration of the above-reference application is requested. Claims 1-30 are in the case.

Claims 23 to 30 have been added to more fully claim that which applicants regard as the invention. Support for the newly added claims can be found at page 9, lines 5-10, Table 1, pages 16-17, and Table 3, page 20. A fee transmittal is enclosed for payment of additional claims.

Rejection under 35 USC 102

Claims 1-3, 8, 10-12, 17, 19 and 20 were rejected under 35 USC 102(b) as being anticipated by Huth et al. (US 5,049,383). The Examiner cited the following specific parts of Huth et al. as proof that the above-cited claims were not novel: biocides in claims 1 and 2, concentrations in claim 3, polymers in claims 8 and 9 and protective colloids in col. 8, lines 28-56.

Response to 102 Rejection

Claims 1 and 10 have been amended to more precisely describe the polymer emulsions as being stabilized with protective colloids. Claims 4, 13, 19, and 20, were amended to conform with amended claims 1 and 10. Support for the amendments can be found at page 6, lines 4-14, of the specification.

Claims 1 and 10, and the claims dependent upon claims 1 and 10 might have been misunderstood as originally presented. The polymer emulsions are stabilized with protective colloids. The cationic compounds are combined with the colloid-stabilized polymer emulsions in order to preserve the polymer emulsions against biodeteriogenic spoilage. They do not serve as stabilizing agents. Claims 1 and 10 have also been amended to limit the cationic compounds to a substituted guanidine salt and/or a polymeric cationic compound.

The polymer emulsions disclosed by Huth et al. are cationic polymer emulsions to which are added additional cationic compounds selected from tetrasubstituted ammonium salts and substituted pyridinium salts. Huth et al. does not teach or suggest the addition of a

substituted guanidine salt or a polymer cationic compound, such as poly(hexamethyleneguanide). It is therefore submitted that Huth et al. does not anticipate amended claims 1-3, 8, 10-12, 17, 19 and 20, and the claims would not have been obvious based on the disclosure of Huth et al. Withdrawal of the 102 rejection is requested.

In addition, Huth et al. does not anticipate newly added claims 23-30. Claims 23-26 are directed to protective colloid stabilized aqueous polymer emulsions which are combined with 10 to 500 ppm of a cationic compound in order to provide resistance to biodeteriogenic microbe contamination of the polymer emulsion. Claims 27-30 are directed to a method of preserving protective a colloid stabilized aqueous polymer emulsion by combining it with 10 to 500 ppm of a cationic compound. Huth et al. teaches the addition of 0.1 to 20 wt % (1000 to 200,000 ppm) of a tetrasubstituted ammonium compound or a substituted pyridinium compound to a cationic dispersion in order to use it as a treatment agent for preservation of materials such as wood, emulsion paint films, and polymer plasters. Therefore Huth et al. does not anticipate newly added claims 23-30. Also, claims 23-30 would not have been obvious in view of Huth et al., since Huth et al. teaches addition of a much higher amount of tetrasubstituted ammonium compound or substituted pyridinium compound. Even if an obviousness rejection were to be given, data in the instant case rebut a prima facie obviousness rejection. The examples in this application illustrate the biocidal effect of adding cationic compounds to poly(vinyl alcohol) stabilized VAE polymer emulsions at levels ranging from 50 to 500 ppm. Data in Examples 1-3 show that at levels ranging from 50 to 400 ppm, cationic compounds of this invention unexpectedly prevent biodeteriogenic microbe contamination of poly(vinyl alcohol)stabilized VAE polymer emulsions. The data therefore rebut a prima facie obviousness rejection of claims 23-30 based on the disclosure of Huth et al.

103 Rejection

Claims 1-4, 6-13, and 15-22 were rejected under 35 USC 103(a) as being unpatentable over Huth et al. (US 5,049,383) in view of Morpeth (US 5,364,874). Morpeth was cited as teaching the combination of 2-methyl-4,5-trimethylene-4-isothiazolin-3-one with other biocides, such as dimethyldidecylammonium chloride. It was concluded that it would have been obvious to select cetyl pyridium chloride or dimethyldidecylammonium chloride with an isothiazolinone taught by Morpeth.

Response

The above arguments against the 102 rejection also apply to this rejection with regard to the teachings of Huth et al. With regard to Morpeth, there is no teaching or suggestion that the biocides described therein would be appropriate in protective colloid stabilized polymer emulsions. There is merely a general reference to aqueous based latices (col. 4, lines 64-66), particularly acrylic latices (col. 5, line 1). In addition, Morpeth does not disclose pyridinium compounds, polymeric cationic compounds or substituted guanidine salts as biocides.

There is no motivation to combine the biocides disclosed by Morpeth with the cationic polymer emulsions disclosed by Huth et al. Regardless, the combination would not result in the invention as recited in amended claims 1-4, 6-13, and 15-22 nor newly added claims 23-30.

Withdrawal of the 103 rejection is requested.

Allowable Subject Matter

Claims 5 and 14 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form incorporating all limitations of the base and intervening claims. It is believed that the amended claims and new claims are now patentable, as argued above.

In view of the amendments and arguments made herein, it is believed that the application is in condition for allowance and should be passed to issue.

Respectfully submitted,

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